

CLAIMS

1. An optical fiber connector for receiving a fiber plug, comprising:
 - a housing defining an inserting hole;
 - an insert body mounted in the inserting hole of the housing;
 - a door being clamped between the housing and the insert body and covering an inlet side of the inserting hole;
 - a spring member mounted within the housing;wherein the door is bent inwardly into the inserting hole of the housing, by insertion of a fiber plug, against a spring force applied by the spring member to the door to press and stably mount the fiber plug in the inserting hole of the housing.
2. The optical fiber connector as claimed in claim 1, wherein the spring member is insert molded with the door.
3. The optical fiber connector as claimed in claim 2, the door further comprises a shutter and a fixing portion, the shutter covering the inlet side of the inserting hole of the housing.
4. The optical fiber connector as claimed in claim 3, wherein the insert body defines an opening closed by the shutter.
5. The optical fiber connector as claimed in claim 4, wherein the insert body comprises a faceplate, a top wall and two opposite side walls having two keys for coupling with two notches of the housing, the opening being defined in the middle of the faceplate.
6. The optical fiber connector as claimed in claim 5, wherein the housing comprises a front flange, and the fixing portion of the door is held between the front flange and the faceplate.

7. The optical fiber connector as claimed in claim 6, wherein the shutter is bent inwardly substantially perpendicular to the fixing portion after the fiber plug is inserted into the inserting hole of the housing.
8. The optical fiber connector as claimed in claim 1, wherein the spring member is mounted in a recess of the housing.
9. The optical fiber connector as claimed in claim 8, the door comprises a shutter and a fixing portion, the shutter covering the inlet side of the inserting hole of the housing.
10. The optical fiber connector as claimed in claim 9, wherein the insert body defines an opening closed by the shutter.
11. The optical fiber connector as claimed in claim 10, wherein the insert body comprises a faceplate, a top wall and two opposite side walls having two keys for coupling with two notches of the housing, the opening being defined in the middle of the faceplate.
12. The optical fiber connector as claimed in claim 11, wherein the housing comprises a front flange, and the fixing portion of the door is held between the front flange and the faceplate.
13. The optical fiber connector as claimed in claim 1, further comprising an optical element and a spacer, the optical element is mounted in the housing by engaging the spacer to the housing.
14. The optical fiber connector as claimed in claim 1, wherein the door undergoes deformation when an external force is applied thereto, and restores to its original state when the external force is removed.
15. An optical fiber connector assembly comprising:

a housing defining an insertion hole defining a front opening;

a plug adapted to be inserted into the insertion hole through said front opening;

and

a door having an end fixed to the housing around said front opening and covering said front opening when no plug is inserted into the insertion hole; wherein

said door being is configured to be able to be inwardly bent about the end thereof when said plug is inserted into the insertion under a condition that a spring device is provided in the insertion hole and positioned between the door and a wall of the housing, and wherein the door is positioned between the plug and said wall.

16. The assembly as claimed in claim 15, wherein said spring device is attached to a backside of the door.

17. The assembly as claimed in claim 15, wherein said spring device is attached to the housing.

18. The assembly as claimed in claim 15, further including an insert body in the front opening to fix the door to the housing, and said insert body defines an inlet through while said plug is adapted to be inserted into the insertion hole.

19. The assembly as claimed in claim 15, wherein said door is bent, rather than rotated, about said end, when the plug is inserted into the insertion hole.